KHRISTOV, Khr. K.
Surname (in caps); Given Names

Country: Bulgaria

Academic Degrees: not indicated

Affiliation: not indicated

Source: Sofia, Matematika i Fizika, No 2, Mar/Apr 61, pp 63-64

Data: "Experiments with Electric Indicator EM 80."

KHRISTOV, Khr., inzh.

Nomogram for determining the relative weight of the air. Min delo 16 no.11:38 '61.

(Air) (Nomography)

KHRISTOV, Khristo K. (Sofiia)

Two tests with a two-electrode tube. Mat i fiz Bulg [redacted]3:59-60 My- Je '62.

KHRISTOV, Khristo K. (Sofiia)

Demonstrating the single-phase rectification of an alternating current with a two-electrode tube. Mat i fiz Bulg 5 no.3:58-59 My-Je '62.

KHRISTOV, Khristo Kostov (Sofiia)

Obtainment of absorption spectra with sodium vapor. Mat i fiz Bulg 5 no.4:56-57 Jl-Ag '62.

KHRISTOV, Khristo K. (Sofiia)

Two demonstrations of the vibration of tuning fork. Mat i fiz Bulg 5 no.5:57-58 S-O '62.

KHRISTOV, Khristo K. (Sofiia)

Some experiments with neon lamps. Mat i fiz Bulg 5 no.6:55-56 N-D '62.

KHRISTOV, Khristo K. [Christov, Christo K.] (Sofiya)

Methods for making slide rules with several sliders. Nom. sbor. no.1:105-114 '62. (MIRA 16:5)
(Slide rule) (Nomography (Mathematics))

KHRISTOV, Khristo K. (Sofia)

Demonstration of the Magnus effect. Mat i fiz Bulg 6 no.1:53 Ja-F'63.

1. Chlen na Redaktsionnata kolegiia, "Matematika i fizika".

KHRISTOV, Khristo K. (Sofia)

Demonstration with cathode-ray tubes. Mat i fiz Bulg 6 no.3: 54-58 My-Je '63.

KHRISTOV, Khristo K. (Sofia)

Experiments with the UKV-generator (λ= 2m.) Mat i fiz Bulg 7 no. 2: 59-60 '64.

1. Member of the Board of Editors, "Matematika i fizika."

KHRISTOV, Khristo K., inzh.

Determination of the slope safety coefficient. Khidrotekh. i melior 9 no.5:133-134 '64

[redacted], doktor tekh. nauk, inzh.

Thermal stability of pipelines. Khidrotekh i melior 9
no.8:23-26 '64.

KHRISTOV, Khristo, akad.

A big step forward in the development of Bulgarian physics.
Nauka i tekh mladezh 16 no.9:3-7, 58-59 S '64.

KHRISTOV, Khristo K. (Sofiya)

Nomographic method for finding the extreme values of a certain function of an integral argument. Nom. sbor. no.3:47-51 '65.

(MIRA 18:10)

KHRISTOV, Kh. L.

Open correction of inadequate artificial pneumothorax. Izv. Mikrob. inst., Sofia no.8:587-598 1957.

1. Purva tuberkulozna bolnitsa na sgns (gl. lekar: d-r A. Kis'ova)
(PNEUMOTHORAX, ARTIFICIAL
surg. correction of inadequate pneumothorax (Bul))

Djakov, E., und Christov, Chr. Verteilung des elektrischen Potentials in Schlitzanodenmagnetronen. Annuaire [Godišnik] Univ. Sofia. Fac. Phys.-Math. Livre 1. 39, 95–131 (1943). (Bulgarian. German summary)

Source: Mathematical Reviews, Vol 12 No. 1

Christov, C.

Christov, Chr. Über eine Integraleigenschaft der Funktionen von zwei Argumenten. Annuaire [illegible] Univ. Sofia Fac. Phys.-Math. Livre I 39, 395–408 (1943). (Bulgarian. German summary)

This is an earlier presentation of the author's demonstration [Mathematica, Timişoara 23, 103–107 (1948); these Rev. 10, 20] that the only solution of the problem of the preceding review, in which now Ω is a square and G is the group of all Euclidean transformations, is the trivial solution $f(x, y) \equiv 0$. E. F. Beckenbach (Los Angeles, Calif.)

Source: Mathematical Reviews, Vol 11 No. 4

CHRISTOV, CHR.

7

Dilkov, E., und Christov, Chr. Bemerkungen zu der Arbeit "Einige Probleme über nichtgleichmässig zusammendrückbare elastische Membranen" von L. Iliefl. Annuaire [Godišnik] Univ. Sofia, Fac. Phys.-Math. Livre 1, 39, 417–429 (1943). (Bulgarian. German summary)
See the preceding title.

Source: Mathematical Reviews, Vol 12, No. 3

Christov, Chr.

Christov, Chr. On a problem of gas diffusion. Annuaire [Godishnik] Univ. Sofia Fac. Phys.-Math. Livre 1 41, 143-163 (1945). (Bulgarian. English summary)

Source: Mathematical Reviews, Vol 12 No. 4

Christov, Chr.

Christov, Chr. Sur une équation fonctionnelle de M. L. Tchakaloff. Annuaire [Godišnik] Univ. Sofia Fac. Phys.-Math. Livre 1. 42, 45–53 (1946). (Bulgarian. French summary)

M. L. Tchakaloff a proposé le problème suivant: trouver la forme la plus générale de la fonction $f(x)$ analytique dans l'intervalle $0<x<\pi$, satisfaisante à l'équation fonctionnelle $f(\alpha)+f(\gamma)=2f(\beta)$, α, β, γ étant les angles d'un triangle, dont les côtés forment une série arithmétique. Nous avons démontré que cette fonction est donnée par l'expression

$$f(x)=c+\sum_{n=1,2,\cdots}^{\infty} c_n T(v^n)=c\sum_{t=0,1,\cdots}^{\infty} S(v^{4t}),$$

$v=(3^{-\frac{1}{2}}\cot\frac{1}{4}x-1)/(3^{-\frac{1}{2}}\cot\frac{1}{4}x+1)$

$=\sin(\frac{1}{6}\pi-\frac{1}{2}x)/\sin(\frac{1}{6}\pi+\frac{1}{2}x)$,

où c est une constante arbitraire; $T(v)$ la fonction spéciale $T(v)=v+v^2+v^4+\cdots+v^{2^k}+\cdots$, $|v|<1$; $S(v)$ une fonction impaire soumise à la condition unique d'être analytique dans l'intervalle $-1<v<1$; et $c_1, c_2, c_4, \cdots$ les coefficients de son développement en série de Taylor, $S(v)=c_1v+c_2v^2+c_4v^4+\cdots$, convergente dans le voisinage de l'origine $v=0$.

Author's summary.

Source: Mathematical Reviews, 1948, Vol 9, No. 1

CHRISTOV, CHR

Christov, Chr., Sur le problème du corps solide et les équations unitaires de l'électrodynamique et de la gravitation. Annuaire [Godishnik] Univ. Sofia Fac. Phys.-Math. Livre I. 43, 43-112 (1947). (Bulgarian. French summary)

[Volume number misprinted 42 on title page. Author's name misspelled Christov in French summary.]

Mathematical Reviews, Vol No.

Christov, Christo

Christov, Christo. Sur un problème de M. Pompeiu. Mathematica, Timişoara 23, 103–107 (1948).

Let C be a circle of fixed radius. Then the equation (1) $\iint_C F(x, y)dxdy = 0$ is satisfied for all positions of C in the (x, y)-plane by functions of the form (2) $F(x, y) = \sin(ax + by)$, where a and b are suitable constants; there is an infinitude of linearly independent solutions of the form (2). On the other hand, D. Pompeiu has shown [Bull. Sci. Math. (2) 53, 328–332 (1929)] that if C is a square with side of fixed length, and the continuous function $F(x, y)$ has a unique limit as $x^2+y^2 \to \infty$, then (1) holds for all positions of the square C in the (x, y)-plane if and only if $F(x, y) \equiv 0$. The author now establishes the result of Pompeiu without the supplementary restriction that the continuous function $F(x, y)$ have a limit as $x^2+y^2 \to \infty$. *E. F. Beckenbach.*

Source: Mathematical Reviews, Vol 10, No.1

Christov, Chr.

Christov, Chr. Sur l'équation intégrale généralisée de M Pompeiu. Annuaire [illegible] Livre 1 45, 167–178 (1949).

summary:

Let $f(x, y)$ be continuous on A [illegible] domain in A, and let D, [illegible] determining the functions $f(x, y)$, continuous on A, for which $\int\int_{\sigma} f(x, y)\,dx\,dy = 0$ holds for all σ [illegible] shows that if D is a parallelogram [illegible] extends an earlier result [Mathematica [illegible] 23 103–107 (1948); these Rev. 10, 20].

Source: Mathematical Reviews, Vol 12 No. 7

CHRISTOV, Chr.

Christov, Chr. Sur les distances entre les points d'un espace euclidien ou pseudo-euclidien. [illegible] Univ. Sofia [illegible] (Bulgarian. French summary)

Let (a_{ij}) denote any given set of real numbers with $a_{ij}=a_{ji}$ and $a_{ii}=0$, $i, j=0, 1, \cdots, n$. The object of this paper is to show that there exist (1) $n+1$ ordered n-tuples of real numbers $(x_1^{(i)}, \cdots, x_n^{(i)})$, $i=0, 1, \cdots, n$, and (2) real numbers (c_{ij}) with $c_{ij}=c_{ji}$, $i, j=1, \cdots, n$, such that $a_{ij}=\sum_{\alpha,\beta=1}^{n} c_{\alpha\beta}(x_\alpha^{(i)}-x_\alpha^{(0)})(x_\beta^{(j)}-x_\beta^{(0)})$, $i, j=0, 1, \cdots, n$. A stronger form of this theorem in which $c_{ij}=0$ $(i\neq j)$, $c_{ii}=1$ $(1\leqq i\leqq \frac{1}{2}(n+s))$, $c_{ii}=-1$ $(\frac{1}{2}(n+s)<i\leqq n)$, and s is determined in a definite manner from the given set of numbers) was established by Wald [Ergebn. Math. Kolloq. Wien 5 32–42 (1933)] [illegible] such was obtained by Coxeter and [illegible] [Proc. Cambridge Philos. Soc. 30, 1–3 (1934)]. The author's proof is quite lengthy.

L. M. Blumenthal (Columbia, Mo.)

Source: Mathematical Reviews, Vol 12 No. 6

CHRISTOV, CHR

Christov, Chr. Sur les distances entre les points d'un espace euclidien ou pseudo-euclidien. Annuaire [Godišnik] Univ. Sofia. Fac. Sci. Livre 1 46, 9–20 (1950). (Bulgarian. French summary)

The author considers a space of ordered m-tuples $(y^1, y^2, \cdots, y^m)$ of complex numbers with the squared-distance between two points y_r, y_s given by

$$\sum_{a,b=1}^{m} g_{a,b}(y_r^a - y_s^a)(y_r^b - y_s^b).$$

He obtains necessary and sufficient conditions in order that a set c_{rs} of real numbers, $c_{rr}=0$, $c_{rs}=c_{sr}$ $(r, s=0, 1, \cdots, n)$ be the squared-distances of real, complex $(n+1)$-tuples of such a space. *L. M. Blumenthal* (Los Angeles, Calif.).

Source: Mathematical Reviews, Vol 13 No.10

CHRISTOV, CHR.: On the Distances Between the Point of a Euclidean or Pseudo-Euclidean Space

Christov, Chr.

Christov, Chr. Une relation entre les volumes d'un simplexe et de ses simplexes limites. Annuaire [Godišnik] Univ. Sofia. Fac. Sci. Livre 1 40, 21–30 (1950). (Bulgarian. French summary)

Let p_0, p_1, p_2 be three of the n vertices ($n \geq 3$) of a simplex whose squared-volume is denoted by U. Denote by U_0, U_1, U_2 the squared-volumes of the sub-simplices obtained by suppressing p_0, p_1, p_2, respectively, and define in like manner the symbols $U_{01}, U_{02}, U_{12}, U_{012}$. The author establishes a complicated homogeneous relation of order 4 in these eight quantities. *L. M. Blumenthal* (Los Angeles, Calif.).

Source: Mathematical Reviews, Vol 13 No.10

KHRISTOV, Kh Ya.

Hristov, Hr. Ya. On a relation between the volume of a simplex and the volumes of its boundaries. Doklady Akad. Nauk SSSR (N.S.) 73, 25–28 (1950). (Russian)

Let m points $a_1, \cdots, a_m$ in E_n be given which lie in no E_{m-2}. Let U denote the volume of the simplex spanned by the a_i, and U_p, U_{pq}, U_{pqr} the volumes of the $(m-2)$-, $(m-3)$-, $(m-4)$-simplices obtained by leaving out a_p, a_p and a_q, a_p and a_q and a_r, respectively, where the volume of a 0-simplex is put equal to 1, and the volume of an empty simplex equal to 0. Then the following relation holds:

$$(m-1)^4(m-3)^{-4}U^2U^2_{pqr}+4(m-2)^2(m-3)^{-2}U_pU_qU_rU_{pqr}$$
$$+4(m-1)^2(m-2)^{-2}UU_{pq}U_{qr}U_{rp}$$
$$-(U_pU_{qr}+U_qU_{pr}+U_rU_{pq})^2$$
$$+2(U^2_pU^2_{qr}+U^2_qU^2_{pr}+U^2_rU^2_{pq})$$
$$-2(m-1)^2(m-3)^{-2}UU_{pqr}(U_pU_{qr}+U_qU_{pr}+U_rU_{pq})=0.$$

H. Busemann (Los Angeles, Calif.).

Source: Mathematical Reviews, Vol 12, No. 1

USSR/Physics - Electromagnetic Waves 1 Dec 51

"Passage of Electromagnetic Waves Through Plano-Parallel Crystalline Plates," Khr. Ya. Khristov, Sofia U, Bulgaria

"Dok Ak Nauk SSSR" Vol LXXXI, No 4, pp 517-520

Khristov's purpose is to give a new method for solving exactly the problem concerning diffraction and reflection of electromagnetic waves in the case of a cryst medium as the result of interference of the incident wave and elementary spherical waves emitted by elec dipoles;

202T85

USSR/Physics - Electromagnetic Waves (Contd) 1 Dec 51

as opposed to Ewald and M. Born, he employs converging series to represent the Hertz vectors. He limits the discussion to a rather sp case although it be generalized in many directions. Submitted by Acad M. A. Leontovich 9 Jul 51.

202T85

KHRISTOV, Khr.Ya.

KHRISTOV, Kh. Ya.

Hristov, Hr. Ya. On the passage of electromagnetic waves through a plane-parallel crystal plate. Doklady Akad. Nauk SSSR (N.S.) 81, 553–556 (1951) (Russian)

The crystal is replaced by a lattice of dipoles with electric dipole moment all in a fixed direction. The incident wave is normal to the plate. It is assumed that all dipoles in the nth parallel layer are excited with the same amplitude Z_n. A set of N linear equations for the Z_n is obtained, where N is the number of dipole layers in the plate. Explicit formulas for the electromagnetic field quantities in terms of Z_n are given. The author asserts that his method improves on previous treatments [cf. Handbuch der Physik, 2d ed., v. 24, part 2, Springer, Berlin, 1933, pp. 770–794] by avoiding some unpleasant infinite series whose convergence is dubious.

A. J. Coleman (Toronto, Ont.)

Source: Mathematical Reviews, Vol 13 No.5

SMW

KHRISTOV, Kh. Ya.

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Hristov, Hr. Ya. On the passage of Röntgen rays through a plane-parallel crystal plate. Doklady Akad. Nauk SSSR (N.S.) 81, 799–802 (1951). (Russian)

In a previous paper [same Doklady 81, 553–556 (1951); these Rev. 13, 517] the author discussed the problem of an electromagnetic wave falling perpendicularly on a set of parallel plates. The equations obtained are difficult to solve, in general, when the number of plates is large. He here gives an approximate method of finding a solution in a particular case of which X-rays falling on a crystal lattice is an instance. *A. J. Coleman* (Toronto, Ont.).

Source: Mathematical Reviews, Vol 13 No. 7

KHRISTOV KHR. YA.

238T105

USSR/Physics - Crystals 21 Aug 52

"The Passage of Rays of Light Through a Plane-Parallel Crystalline Plate," Khr. Ya. Khristov, Bulgarian Acad Sci, Sofia, Bulgaria

"DAN SSSR" Vol 85, No 6, pp 1269-1272

Finds an approximate soln of the problem of the passage of an electromagnetic wave incident normally to a plane-parallel crystal plate (rhombic system) under the assumption that the length of the incident wave is long in comparison with the dimensions of the crystal square; namely, the case which holds for light rays. The case for small wavelengths has already been solved by the author (ibid. 81, No 4 and 5, 1951). Submitted by Acad M. A. Leontovich 28 Jun 52.

238T105

CHRISTOV, C.J.

CZECHOSLOVAK JOURNAL OF PHYSICS
Vol 4, No. 4, November, 1954

Algebra of the isotope spin (3/2, 1/2).

All irreducible systems of n hermitic matrices Γ_μ which specify the cyclic exchange relation of the third order (see eq. (14), p.405) are explicitly determined. It is found that particularly for $n = 3$ only two non-trivial solutions exist, one a six-series one and the other a four-series one. The first-mentioned one is equivalent to a matrix system introduced by Votruba-Lokajicek for describing the behaviour of the isotopic spins of nucleons. The second solution fulfils also the Kemmer relations. For each value of $n > 3$ there is only one non-trivial solution, namely the Kemmer one of the order $N = n + 1$.

By V. Votruba and C.J. Christov.....(In German).....403
Abstract in Russian.....417

Category : BULGARIA/Atomic and Molecular Physics - Gases D-7

Abs Jour : Ref Zhur - Fizika, No 1, 1957, No 914

Author : Khristov, Khr., Nikolov, N.
Title : Determination of Certain Probabilities and Average Values Pertaining to Impacts and to Free Paths Gas Molecules.

Orig Pub : Izv. b"lgar. AN Otd. fiz.-Matem. i tekhn. n., ser. fiz., 1955, 5, 27-36

Abstract : The author determines the probability $P(u,v)\,dt\,dv$ that a gas molecule moving with a given velocity u will experience within a short time interval dt an impact from another molecule, so that its molecule will lie after the impact in the interval v, v + dv. The gas molecules are assumed to be ideally smooth spheres with no interaction force between them except for the elastic impact forces, and that the gas medium is macroscopically stationary and has a given constant temperature T and density n (number of molecules per unit volume). The result is as follows:

$$P(w,v)\,dt\,dv = \frac{\pi a^2}{\sqrt{\pi}cw} C^{-\frac{(vw)^2}{c^2w^2}}\,dt\,dv \quad (w = v-u)$$

where a is the diameter of the molecule, $c = \sqrt{2KT/m}$ (m is the mass of the molecule, K is the Boltzmann constant) is a measure of the average molecule

Card : 1/2

Category : BULGARIA/Atomic and Molecular Physics - Gases

D-7

Abs Jour : Ref Zhur - Fizika, No 1, 1957 No 914

velocity, and n* is the gas density at a distance a from the center of any of its molecules. Using the Bogolyubov method, an expansion $n^* = n[1 + (5\pi/16) a^3 n + \ldots]$ is derived for n*. Certain applications of the above equations are given. Exact expressions are derived for the probability that a molecule will receive an impact in the interval dt regardless of the velocity after impact, and that the duration and the length of the mean free path of the molecule will be contained in a given interval. The author also establishes the average number of impact per unit time in a unit volume, the average duration and the mean free path for any gas density. The probability P(u,v) dt dv is also of importance in the solution of several problems in the theory of fluctuation in gases.

Card : 2/2

Khristov Khr.

BULGARIA/Atomic and Molecular Physics - Gases

D-7

Abs Jour : Ref Zhur - Fizika, No 6, 1958, No 12997

Author : Khristov Khr., Nukolov, N.
Inst : Not Given
Title : Remark Concerning the Work "Establishment of Certain Probabilities and Mean Values Pertaining to Collisions and Free Paths of Gas Molecules."

Orig Pub : Izv. B"lgar. AN. Otd. fiz.-matem. i tekhn. n., cer. fiz., 1955, 5, 35-36.

Abstract : It is noted that the fundamental equation of this work (Referat Zhur Fizika, 1957, No 1, 914) are analogous to the formula obtained in one of the works by Jang (Jang, L.M., Proceedings Royal Society, 1949, 198, 94). Several advantages of the formula by the authors are indicated.

Card : 1/1

KHRISTOV, Kh.

1-F\W

Christov, Chr.; und Nikolov, N. Bemerkung über die Arbeit "Die Auffindung einiger Wahrscheinlichkeiten und Mittelwerte in Bezug auf die Zusammenstösse und die freien Weglängen der Gasmolekule". Izv. Bülgar Akad. Nauk. Otd. Fiz.-Mat. Tehn. Nauk. Ser. Fiz. 5 (1955), 36a–36b. (Bulgarian. Russian and German summaries)

KHRISTOV,

Category : BULGARIA/General Problems - Philosophys. Methodology of AA-2
Science.

Abs Jour : Ref Zhur - Fizika, No 3, 1957, No 5435

Author : Khristov
Title : Concerning Various Methods of Deriving the Law of Conservation of Energy.

Orig Pub : Izv. B"lgar. AN. Otd. fiz.-matem. i tekhn. n., ser. fiz., 1955, 5, 231-283

Abstract : A critical analysis of the methods used to prove the law of conservation of energy leads to the conclusion, that all these methods are based on three premises: 1) the concept of energy, 2) experimental verification, 3) the principle of the equivalence of action as a particular form of the principle of causality. A successive application of these premises makes it possible to consider the concept of work and heat as logically equivalent and initiates the derivation of the law of conservation of energy with more general premises, logically clearer, than is usual, providing in addition a clearly defined

Card : 1/2

CHRISTOV CHR.

...gration of molecules in a ...

...es an initial velocity v. Where ... initial velocity U, and undergoes a displacement between ... dv at time t, the ... between v and $v + dv$. The solution is similar to that for the Brownian movement but mathematically far more complicated.

Alfred J. Moses

KHRISTOV, Khr.Ya.

Approximate expression of Green's function in the kinetic equation for neutrons. Dokl. AN SSSR no.6:1197-1200 D '56. (MLRA 10:3)

1. Predstavleno akademikom N.N. Bogolyubovym.
(Neutrons) (Potential, Theory of)

KHRISTOV, Kh Ya.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1910
AUTHOR CHRISTOV, CHR. JA.
TITLE On GREEN'S Function of the Transport Equation of Neutrons.
PERIODICAL Dokl. Akad. Nauk, 111, fasc. 5, 981-984 (1956)
Issued: 1 / 1957

The transport equation for the diffusion of neutrons in any slowing down, multiplicating, and absorbing medium is an integrodiffrential equation for the density $V(t,\vec{r},\vec{v})$ of neutrons in the space of the coordinates $\vec{r}$ and the velocity $\vec{v}$ at any point of time t at any density $D(t,\vec{r},\vec{v})$ of the primary neutrons. Assuming that $W(s,\vec{q},\vec{u},t,\vec{r},\vec{v})$ be GREEN'S function of this equation, it is shown here that W satisfies two integral equations under very general conditions with respect to the processes which are possible in the case of neutrons. These equations are suited for the description of scattering by nuclei the mass of which is not much greater than the mass of the neutron if not only the fission of nuclei by thermal but also by fast and intermediary neutrons is to be taken into account. The following elementary processes are considered here: The radioactive decay of the neutron; the scattering of the neutron on the occasion of collisions with the particles of the medium, as e.g. with nuclei; the absorption of a neutron by the nuclei of the medium accompanied by the production of radioactive nuclei which may result in delayed neutrons; the absorption of a neutron with production of radioactive nuclei which produce delayed neutrons and with the emission of one or several neutrons; the steady

modification of the velocity of the neutron between two processes such as have hitherto been enumerated. Such a steady modification of neutron velocity can be caused by collisions of the neutron with certain particles of the medium as e.g. with the electrons of the atom shells. The motion of neutrons is investigated in the classical manner, and collisions of neutrons among one another and with the products of their interaction with the medium are neglected on this occasion. Thus the here investigated slowing-down-, multiplication-, and absorption process of neutrons is a certain continuous MARKOV chain.
At first several new quantities (probabilities) are defined and then two equations are written down for the required function W. Also the ordinary transport-theoretical integro-differential equation corresponding to these two equations is written down. Above all, the following case is investigated: The properties of the medium are independent of $\vec{r}$ and t, the motion of the neutrons is homogeneous and rectilinear between the aforementioned processes, and every nucleus is able to give up only a delayed neutron which is emitted on the occasion of its first radioactive decay. The aforementioned equations are specialized for this case.

INSTITUTION:

KHRISTOV, Kh. Ya.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 2000
AUTHOR CHRISTOV, CHR.JA.
TITLE An Approximated Expression for GREEN'S Function of the Kinetic Equation of Neutrons.
PERIODICAL Dokl.Akad.Nauk 111,fasc.6, 1197-1200 (1956)
Issued: 2 / 1957

The present work makes use of the denotations and results of a previous work by CHR.JA.CHRISTOV, Dokl.Akad.Nauk 111, № 5 (1956). The equation for the required GREEN'S function mentioned there can be reduced to the form $W - A - \Phi W = 0$. For the free term and for the integral operator Φ explicit expressions are given. The following approximation solution is obtained by iteration:
$W_n = A + \Phi A + \Phi^2 A + \ldots + \Phi^{n-1} A + \Phi^n W_o$. Here W_o denotes the approximated function W, which serves as a basis. From the physical significance of the terms of the equation just mentioned it can immediately be seen that this sequency converges with increasing n in the case of an arbitrary selection of W_o. Furthermore, this approximation is good only if $t \lesssim n\bar{t}$ is true, where $\bar{t}$ is the average time between two partial acts of the process under investigation. The present work intends to define the function W_o in such a manner that it represents the greatest approximation of W for large t, and that W_n furnishes a good approximation to W already in the case of a small n and any t. This ansatz for W_o is here explicitly given and turns out to be a generalization

CHRISTOV, CHR,

HUNGARY/Atomic and Molecular Physics - Statistical Physics D-3
Thermodynamics.

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 708

Author : Christov, Chr.

Inst : Institute of Theoretical Physics, Bulgarian Academy, Sofia, Bulgaria.

Title : Motion of Molecules in Gas. II.

Orig Pub : Acta. phys. Acad. sci. hung., 1957, 7, No 1, 51-66

Abstract : The author gives several applications of the formulas, derived in part I of his work (Referat Zhur Fizika, 1957, No 4, 8970). The average acceleration of a molecule moving with a given velocity is calculated, and the result is independent of the assumption made that the states of the molecules from a Markov chain. The author next finds an expression for the coefficient of

Card 1/2

Abstract : The results obtained by the author in two earlier works for pure gases (Referat Zhurnal Fizika, 1957, No 4, 8970; Abstract 708) [illegible] to include the case of a gas mixture. The author introduces the concept of the probability of a definite spatial displacement and a definite change in velocity of the molecules, belonging to the gas mixture. This probability satisfies an integral

Card 1/2

HUNGARY/Atomic and Molecular Physics - Statistical Physics D-3
Thermodynamics.

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 709

equation, whose solution is sought in the form of a series, and two differential equations. The author next gives several examples of the application of the derived formulas. In particular, he derives the coefficient of dynamic friction for Brownian movement, which does not coincide in the general case with the expression given by the Stokes law. Under certain conditions (low concentration of Brownian particles and their small dimensions compared with the mean free path), the author's expression goes into the Stokes expression.

KHRISTOV, KHR. YA.

AUTHOR: Khristov, Khr.Ya. 56-3-20/59

TITLE: On the Green's Function of the Cascade Kinetic Equations (O funktsii Grina kineticheskikh uravneniy laviny)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 3, pp. 683-695 (USSR)

ABSTRACT: Cascades, consisting of n-types Aj (j = 1, 2, ..., n) and of K particles, which are moving in the given medium, colliding with mediumpparticles and are being scattered and absorbed on this occasion with new particles being formed as consequence of the collision, are dealt with. There is the condition that the properties of the medium observed depend on the position as well as on the time. Furhtermore the density of the cascades should be small so that the particles of the cascades do not collide with one another. The author also assumes that between two collisions every particle is not coupled with the motion of the rest of the particles of the cascade.

Functions are introduced which represent the distribution of the particles of any type according to coordinates and velocity for any time. These functions are represented in form of integral equations.

Card 1/2

On the Green's Function of the Cascade Kinetic Equations. 56-3-20/59

An approximative solution for the integral equations deduced is given for the case that the medium is homogeneous and that it does not change with regard to time. The best approximation is achieved by stepwise integration. There are 12 Slavic references.

ASSOCIATION: Moscow State University (Moskovskiy Gosudarstvennyy universitet)

SUBMITTED: March 1, 1957

AVAILABLE: Library of Congress

Card 2/2

KHRISTOV, KHR. YA.

56-4-8/54

AUTHOR: Khristov, Khr. Ya.,

TITLE: On the Distribution of Cascades in a Multi-Layer Medium. (O rasprostranenii laviny v mnogosloynoy srede)

PERIODICAL: Zhurnal Eksperim. i Teoret. Fiziki, 1957, Vol. 33, Nr 4, pp. 877-882, (USSR)

ABSTRACT: The cascades consisting of various types of particles are theoretically treated, namely when the particles are distributed in a medium which is composed of homogeneous layers R^{λ} . The boundyries of the layers are movable. The particles of the cascades impinge upon particles of the medium, on which occasion they are absorbed or scattered. But there may also develop particles. The function W^{λ} (it indicates the velocity distribution and the local distribution of the particles of every type) is sought for the assumption that the function V^{λ} (it indicates the distribution of the particles in every R^{λ} layer, in case they would take up the entire space) is known. Infinite, well diverging integral series are given for the sought function W^{λ} . The integrands are certain derivatives of the function V^{λ} . There are 8 Slavic references.

ASSOCIATION: Moscow State University (Moskovskiy gosudarstennyy universitet)

SUBMITTED: May 4, 1957

Card 1/2

On the Distribution of Cascades in a Multi-Layer Medium 56-4-8/54

AVAILABLE: Library of Congress

Card 2/2

56-4-9/54

On Correlations in the Distribution of Cascade Particles

ASSOCIATION: Moscow State University
(Moskovskiy gosudarstvennyy universitet)

SUBMITTED: March 1, 1957

AVAILABLE: Library of Congress

Card 2/2

AUTHOR: IVANENKO,D., KHRISTOV, KHR.

TITLE: Discussion of the book by WALTHER THIRRING "Introduction into Quantum Electrodynamics", Vienna, Franz Deuticke, 1955.(VAL'TER TIRRING, Vvedeniye v kvantovuyu elektrodinamiki, Russian).

PERIODICAL: Uspekhi Fiz.Nauk, 1957, Vol 61, Nr 2, pp 308-310 (U.S.S.R.)
Received: 4 / 1957 Reviewed: 5 / 1957

ABSTRACT: The following are the most important points of this discussion: Unlike all other existing monographies on quantum electrodynamics this book is very short (VIII + 122 rather small pages). Formulae contained in the text are comparatively simple. In spite of this, the material dealt with is very voluminous.
In the introduction some formulae on classical relativistic electrodynamics are given and some phenomena in nuclear physics are sketched out. The first part of the book, "The Quantization of Free Fields", (39 pages), successfully formulates the general principles of the quantum theory of the field, discusses the most important relations of the second quantization, as well as the connection between spin with statistics. Further, some concrete fields (scalar, vectorial, spinorial) and vacuum fluctuations are investigated.
The second part "Fields with Interaction" deals with general equations of quantum electrodynamics and their solution by means of the perturbation method. The scattering matrix is given and several types of FEYNMAN-diagrams are explained.

Card 1/2

KHRISTOV, Khr. Ya.

20-2-14/50

AUTHOR: Khristov, Khr. Ya.

TITLE: On the Diffusion of Charged Particles in a Homogeneous Electromagnetic Field (O diffuzii zaryazhennykh chastits v odnorodnom elektromagnitnom pole)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 116, Nr 2, pp. 213 - 216 (USSR)

ABSTRACT: The author investigated the diffusion of molecules, neutrons and avalanche particles in three previous papers (ref. 1-3) and derived an equation for the probability $V_{ij}(s, \vec{q}, \vec{u}, t, \vec{r}, \vec{v})\, d\vec{r}\, d\vec{v}$. Here the probability is concerned that a particles of the type i, which at the moment s, has the position $\vec{q}$ and the velocity $\vec{u}$, at the moment t includes a particle of the type j with a radius vector located between $\vec{r}$ and $\vec{r} + d\vec{r}$, and a velocity between $\vec{v}$ and $\vec{v} + d\vec{v}$. The present paper simplifies the equation for the determination of V somewhat, so that the problem is simplified a little. As the avalanche in the case investigated here consists of particles of one and the same type, $n = 1$ is true and the indices i, j no longer exist. Further, it may be assumed, without general restriction that the magnetic field is directioned in the x-axis and the electric field $\vec{E}$ is located in the x, y plane. Also the homogeneity of the medium simplifies the problem. The integral equation for V is given

Card 1/2

KHRISTOV, Khr. IA. (Sofiia)

Impressions of the development of the physical sciences in India.
Spisanie BAN 5 no.2:45-50 '60. (EEAI 9:11)

1. Chl.-kor. Bulgarska akademiia na naukite, Sofiia.
(India--Science)

KHRISTOV, KHr. Ya. (Sofiya)

Equation of the diffusion of single-velocity isotropically scattering neutrons in the one-dimensional stationary case. Zhur. vych. mat. i mat. fiz. 1 no.5:825-835 S-O '61. (MIRA 14:10)

(Integrodifferential equations)
(Neutrons--Scattering)

KHRISTOV, Khr. Ia.

Soviet physicist L.D. Landau, winner of the 1962 Nobel prize for physics. Fiz mat spisanie BAN 5 no.4:305-306 '62.

KHRISTOV, Khr. Ya [Khristov, Khr. IA.]

A more precise definition of the empirical method for the determination of meteorologic corrections in cosmic radiation. Godishnik fiz mat 55 no.2:139-155 '60/'61 [publ. '62].

L 22122-66 EWT(1)

ACC NR: AP6004922 SOURCE CODE: UR/0056/66/050/001/0076/0077

AUTHOR: Kirillova, L. F.; Nikitin, V. A.; Sviridov, V. A.; Strunov, L. N.; Shafranova, M. G.; Korbel, Z.; Rob, L.; Zlateva, A.; Markov, P. K.; Todorov, T.; Khristov, L.; Chernev, Kh.; Dalkhazhav, N.; Tuvdendorzh, D.

ORG: /Kirillova; Nikitin; Sviridov; Strunov; Shafranova/ Joint Institute of Nuclear Research, Dubna (Ob"yedinennyy institut yadernykh issledovaniy); /Korbel; Rob/ Czechoslovakian Higher Technical School, Prague (Chekhoslovatskoye Vyssheye tekhnicheskoye uchilishche); /Zlateva; Markov; Todorov; Khristov; Chernev/ Physics Institute, Bulgarian Academy of Sciences, Sofia (Fizicheskiy institut Bolgarskoy Akademii nauk); /Dalkhazhav; Tuvdendorzh/ Institute of Chemistry and Physics, Mongolian Academy of Sciences, Ulan-Bator (Institut khimii i fiziki Mongol'skoy Akademii nauk)

TITLE: Real part of the pp elastic scattering amplitude at 2, 4, 6, 8, and 10 Gev

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 50, no. 1, 1966, 76-77

TOPIC TAGS: proton scattering, elastic scattering, scattering amplitude, differential cross section, nuclear scattering

Card 1/2

L 22122-66

ACC NR: AP6004922

ABSTRACT: This is a continuation of earlier work by the authors (Phys. Lett. v. 13, 93, 1964) in which they present results of the measurements of the real part of the nuclear elastic scattering amplitude for an energy of 4 Gev, and more precise data for energies 2, 6, 8, and 10 Gev, taking into account the relativistic corrections. The experimental technique was described elsewhere (PTE no. 6, 18, 1963). The differential cross section was measured in the interval $0.003 < |t| < 0.2$ $(Gev/c)^2$ (t = momentum transfer squared). The analysis of the obtained data as well as those reported by others was based on the Bethe formula (Ann. of Phys. v. 3, 190, 1958) with allowance for radiative corrections. The results agree well with the theoretical curve proposed by Soding (Phys. Lett. v. 8, 286, 1963), up to an energy of 20 Gev, above which some discrepancy appears. Orig. art. has: 1 figure and 2 formulas.

SUB CODE: 20/ SUBM DATE: 25Aug65/ ORIG REF: 001/ OTH REF: 008

Card 2/2 BK

L 24301-66 EWT(m) DIAAP

ACC NR: AP6006795 SOURCE CODE: UR/0386/66/003/001/0015/0021

AUTHOR: Zolin, L. S.; Kirillova, L. F.; Liu, Ch'ing-ch'iang; Nikitin, V. A.; Pantuyev, V. S.; Sviridov, V. A.; Strunov, L. N.; Khachaturyan, M. N.; Shafranova, M. G.; Korbel, Z.; Rob, L.; Devinski, P.; Zlatanov, Z.; Markov, P.; Khristov, L.; Chernev, Kh.; Dalkhazhav, N.; Tuvdendorzh, D.

ORG: [Zolin, Kirillova, Liu, Nikitin, Pantuyev, Sviridov, Strunov, Khachaturyan, Shafranova] Joint Institute of Nuclear Research, Dubna (Ob"yedinennyy institut yadernykh issledovaniy); [Korbel, Rob] Czechoslovakian Higher Technical School, Prague (Cheshskoye vysshaye tekhnicheskoye uchilishche); [Devinski, Zlatanov, Markov, Khristov, Chernev] Physics Institute, Bulgarian Academy of Sciences, Sofia (Fizicheskiy institut Bolgarskoy akademii nauk); [Dalkhazhav, Tuvdendorzh] Institute of Physics and Chemistry, Mongolian Academy of Sciences, Ulan Bator (Institut fiziki i khimii Mongol'skoy akademii nauk)

TITLE: Real part of the pn scattering amplitude in the energy interval 2--10 Gev

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 3, no. 1, 1966, 15-21

TOPIC TAGS: proton scattering, neutron scattering, scattering amplitude, differential cross section, deuteron reaction

ABSTRACT: On the basis of experimental data obtained by the authors on elastic pd scattering in the energy interval 1--10 Gev, and information on pp scattering amplitude in this energy range, the authors determined the real part of the scattering

Card 1/2

L 24301-66

ACC NR: AP6006795

amplitude by means of an experiment involving registration of slow recoil deuterons from a film target of deuterated polyethylene 0.5--0.6 μ thick. The investigated range of the squared momentum transfer was $0.003 < |t| < 0.2$ (Gev/c)^2. Plots are presented of the differential cross sections vs. the square of the momentum transfer and an empirical formula is given for these plots. The value obtained for the total cross section of elastic pd scattering at 6 Gev is several times smaller than that measured by others. In the small-angle region of pd scattering, constructive interferences were observed between the Coulomb and nuclear scatterings. From the obtained real part of the pd scattering amplitude, and from a comparison of the obtained data with earlier measurements by the authors of the pp scattering amplitude of the same energies (ZhETF v. 50, 76, 1966), the estimated real part of the pn scattering amplitude is +0.2, -0.06, -0.45, and -0.40 for 2, 6, 8, and 10 Gev respectively. The small nonzero real part of the pn scattering amplitude agrees with data obtained at CERN (G. Bellettini et al., Internat. Conf on Elementary Particles, Oxford, 1965). Orig. art. has: 2 figures, 3 formulas, and 2 tables.

SUB CODE: 20/ SUBM DATE: 12Nov65/ ORIG REF: 005/ OTH REF: 005

Card 2/2

KHRISTOV, L., arkh.

A plant for bentwood furniture at Bansko. Tekh delo 482:2 13 Jl '63.

KHRISTOV, L., arkhitekt

Enterprises for cellular concrete. Tekh delo 13 no.424:2 21 Ap '62.

KHRISTOV, L., arkh.

A carpentry enterprise is under construction at the Iskur Station.
Tekh delo no.44O:1 25 Ag '62.

KHRISTOV, L., arkh.

Shop for stone lining pavements in Plovdiv. Tekh delo 503
1 14D '63.

KHRISTOV, L., arkh.

A new shop for medical and fine household glassware. Tekh delo 499: 2 16 N '63.

KHRISTOV, Laliu

Preparation of solutions for injection in pharmacies. Farmatsiia 4 no.1:15-18 Ja-F '54.
(INJECTIONS,
*prep. of solutions of inject. in pharm.)

TOPCHIISKI, Sl., st.asistent; KHRISTOV, L., st.n.sutrudnik

Black currant and its nutrient and medicinal properties.
Prir i znanie 16 no.3 4-7 Mr '63.

BULGARIA / Cultivated Plants. Fruits, Berries, Nutbearing, Teas. M-6

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6406

Author : Khristov, Lulcho; Vorbanov, Tsvyatko
Inst : Not given
Title : The State and Prospects of Fruit Cultivation Development in the Neighborhood of Vrachanska

Orig Pub : Ovoshcharstvo i gradinarstvo, 1958, No 1, 10-16

Abstract : No abstract given

Card 1/1

COUNTRY : BULGARIA
CATEGORY : Cultivated Plants. Fruits. Berries.

ABS. JOUR. : RZhBiol., No. 23, 1958, No. 104367

AUTHOR : Khristov, L.
INST. : [illegible]
TITLE : Wild Strawberry Variety - Mitsi Shindler.

ORIG. PUB. : Ovoshcharstvo i gradinarstvo, 1956, No. 4, 13-14

ABSTRACT : No abstract.

CARD: 1/1

KHRISTOV, L.

The dependence of impulse force of a proportional counter upon the incident place of the ionizing particles. p. 113. (GODISHNIK. MATEMATIKA I FIZIKA, Vol. 49, No. 1, 1954/55 (published 1956), Sofia, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 9, Sep 1957. Uncl.

KHRISTOV, L.

Gas intensification with proportional counters. p. 109. Sofia. Universitet. Fiziko-matematicheski fakultet. GODISMIK. MATEMATIKA I FIZIKA. Sofiya. Vol. 48, no. 1.

SOURCE: East European Accessions List, (EEAL) Library of Congress. Vol. 5, No. 8, August 1956.

KHRISTOV, L., arkh.

A plant for the gypsum and gypsum products in the village Koshava, Vidin region. Tekh delo no.437:1 4 Ag '62.

KHRISTOV, L., arkh.

The new shop for the reinforced-concrete sleepers in the State Cement Factory "Vulkan" at Dimitrovgrad. Tekh delo 13 no.430:1 9 Je '62.

KHRISTOV, Liubomir

Moles. Prir i znanie 17 no.4:8-10 Ap '64.

KHRISTOV, Lulcho, starshi nauchen sutrudnik

Most suitable varieties of strawberry for the experiment gardens in the schools. Prir i znanie 14 no.4:1-2 Ap '61.
(EEAI 10:9/10)

1. Tsentralen nauchnoizsledovatelski institut po ovoshtarstvo krai gara Kostinbrod.

(Strawberries)

CHRISTOV, L. G.

BULGARIA/Electronics - Electrical Discharges in Gases and Gas Discharge Apparatus. H-7

Abs Jour : Ref Zhur - Fizika, No 11, 1958, No 25725

Author : Hristov L.G.
Inst : Not Given
Title : On the Dependence of the Gas Amplification Factor with Proportional Counter Voltage.

Orig Pub : Dokl. Bolg. AN 1957, 10, No 6, 453-456

Abstract : An approximate derivation is given for a formula for the dependence of the gas amplification factor K and the quantities that are characteristic of cylindrical proportional counters in the interval of K values from 20 or 30 to 10^3 or 10^4.

Card : 1/1

S/058/62/000/006/012/136
A061/A101

AUTHORS: Zlateva, A. I., Markov, P. K., Peyeva, A. T., Khristov, L. G., Chernev, Kh. M.

TITLE: Elastic proton-proton scattering under small angles at 6.2-Bev energy

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 29, abstract 6B207 ("Dokl. Bolg. AN", 1961, v. 14, no. 5, 443 - 446, English summary)

TEXT: Elastic p-p scattering at 6.2-Bev energy under angles of $1^{\circ}.2$ - $11^{\circ}.5$ in the center-of-mass system has been studied using a photoemulsion chamber irradiated by the internal proton beam of the ОИЯИ (OIYaI) proton synchrotron. An irradiation geometry has been used, in which the incident flux is perpendicular to the plane of the emulsion layers. This experimental arrangement permits the efficient recording of p-p scattering down to very small angles, and a reliable singling out of background events. In all, 141 cases of elastic p-p scattering have been singled out. The results are compared with the differential section under zero angle, calculated by the optical theorem using the full sec-

Card 1/2

S/058/62/000/006/012/136
A061/A101

Elastic proton-proton scattering...

tion of p-p interaction. Conclusions on the presence of a real part in the scattering amplitude or on its dependence on the spin state will be possible only after the statistical basis has been extended.

[Abstracter's note: Complete translation]

Card 2/2

ACCESSION NR: AT4017777 B/2503/63/011/01-/0101/0104

AUTHOR: Zlatanov, Z. M.; Kanazirski, Kh. M.; Markov, P. K.; Khristov, L. G.

TITLE: Elastic scattering of protons by deuterons at small angles at 6.2 GeV

SOURCE: B"lgarska Akademiya na Naukite. Fizicheski institut. Izvestiya na Fizicheskiya institut s ANEB (News of the Institute of Physics and the Atomic Energy Scientific Research Foundation), v. 11, no. 1-2, 1963, 101-104

TOPIC TAGS: scattering, elastic scattering, proton, deuteron, synchrophasotron, photoemulsion

ABSTRACT: The photoemulsion method was used to investigate elastic p-d scattering at 6.2 GeV. A stack, 9 cm in diameter and 2 cm thick, consisting of 29 emulsion layers of the NIKFI-BR type saturated with heavy water, was irradiated by the internal proton beam of the OIYaI [United Nuclear Research Institute] synchrophasotron at Dubna. The incident beam was perpendicular to the surface of the layers, and had an average density $(4.13 \pm 0.08) \cdot 10^5$ protons per sq. cm. The scanning, the measurements and identification of instances of elastic scattering were performed according to the methodology described by V. B. Lyubimov, P. K. Markov, E. N. Tsyganov, Chzhen Pu-in and M. G. Shafranova (ZhETF, 37, 910, 1959). A total of 140

Card 1/2

ACCESSION NR: AT4017777

instances of elastic scattering were found. The differential cross section obtained is shown in Table 1 and Figure 1 of the Enclosure. The cross section of elastic p-d scattering in the angular interval 1.5°--7.5° c.m.s. was found to be σ = (8.41 ± 0.73) mb/sterad. The screening coefficient of deuteron was found to be 9%. "The authors cordially thank the Directorate of OIYaI [Obedineniya institut za yadreni izsledvaniya; United Nuclear Research Institute] for the irradiation and chemical treatment of the photoemulsion stack, and M. G. Shafranova for assistance rendered in the work." Orig. art. has: 4 figures, 1 table.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 04Mar64 ENCL: 02

SUB CODE: PH NO REF SOV: 003 OTHER: 001

Card 2/4

ACCESSION NR: AP4042553 S/0056/64/046/006/1964/1966

AUTHORS: Zlatanov, Z. M.; Kanazirski, Kh. M.; Mincheva, L. D.; Khristov, L. G.

TITLE: Elastic proton deuteron scattering at 6.2 GeV

SOURCE: Zh. eksper. i teor. fiz., v. 46, no. 6, 1964, 1964-1966

TOPIC TAGS: proton scattering, deuteron bombardment, heavy water, nuclear emulsion, elastic scattering, reaction energy

ABSTRACT: With an aim at increasing the statistical accuracy of earlier work (Z. M. Zlatanov, Kh. M. Kanazirski, P. K. Markov, L. G. Khristov, Izv. Fiz. instituta ANEB, v. 11, 101, 1963) the authors used a pellicle stack of 29 type NIKFI-B or emulsion of initial thickness 400μ, three pellicles of which were impregnated with heavy water and the remainder with ordinary water. The stack was irradiated by the internal proton beam of the OIYaI proton synchrotron per-

Card 1/3

ACCESSION NR: AP4042553

pendicular to the emulsion plane. A total of 20.16 cm^2 was area-scanned at a magnification of 630 x. Altogether 267 cases of elastic pp scattering were obtained. The differential cross section values are given for the c.m.s. range 2--9.5°. The value obtained for the elastic scattering is $\sigma_{el} = 12.6 \pm 1.4$ mb, and for the effective radius of pd interaction $R = (2.0 \pm 0.1) \times 10^{-13}$ cm. Orig. art. has: 2 formulas, 1 figure, and two tables. "The authors are grateful to the OIYaI management for cooperation and to M. G. Shafranov and P. K. Markov for help with the work."

ASSOCIATION: Ob"yedinenny*y institut yaderny*kh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 30Dec63 DATE ACQ: ENCL: 01

SUB CODE: NP NR REF SOV: 004 OTHER: 004

Card 2/3

ACCESSION NR: AP4042553

ENCLOSURE: 01

Scanning efficiency ϵ, number n of elastic scattering pd events, and differential scattering cross section

$\theta_{c.m.}$, град cms deg	n	ϵ	$d\sigma/d\Omega$, мбн/стерад mb/sr
2,0—3,5	88	0,90±0,03	359±41
3,5—5,5	103	0,90±0,03	186±20
5,5—7,5	53	0,89±0,04	70±10
7,5—0,5	16	0,87±0,07	22±6
>9,5	7		

The same for pp scattering

$\theta_{c.m.}$, град	n	ϵ	$d\sigma/d\Omega$, мбн/стерад	$d\sigma/d\Omega$, мбн/стерад [*]
2,5	6			
2,5—6,5	15	0,90	58,5±15	65,7±0
6,5—10,5	12	0,74	30,1±0	33,8±5
>10,5	6			

Card 3/3

KIRILLOVA, L.F.; NIKITIN, V.A.; PANTUYEV, V.S.; SVIRIDOV, V.A.; STRUNOV, L.N.; KHACHATURYAN, M.N.; KHRISTOV, L.G.; SHAFRANOVA, M.G.; KORBEL, Z.; ROB, L.; DAMYANOV, S.; ZLATEVA, A.; ZLATANOV, Z.; YORDANOV, V. [Iordanov, V.]; KANAZIRSKI, Kh.; MARKOV, P.; TODOROV, T.; CHERNEV, Kh.; DALKHAZHAV, N.; TUVDENDORZH, D.

Elastic pp and pd-scattering at small angles in the energy range 2 - 10 Bev. IAd. fiz. 1 no.3:533-539 Mr '65. (MIRA 18:5)

1. Ob"yedinennyy institut yadernykh issledovaniy. 2. Vysshaye tekhnicheskoye uchilishche, Praga (for Korbel, Rob). 3. Fizicheskiy institut Bolgarskoy Akademii nauk, Sofiya (for Damyanov, Zlateva, Zlatanov, Yordanov, Kanazirski, Markov, Todorov, Chernev). 4. Institut khimii i fiziki, Ulan-Bator, Mongol'skaya Narodnaya Respublika (for Dalkhazhav, Tuvdendorzh).

KHRISTOV, L.N.; BEZVERKHIY, G.S.; SHULYAPIN, I.Ya.

Apparatus for cultivation of tissues in rotating test tubes. Vop. virus. 1 no.3:56-58 My-Je '56. (MLRA 10:1)
(TISSUE CULTURE, apparatus and instruments,
appar. for cultivation of tissues in rotating test tubes (Rus))

KHRISTOV, I.N.

KHRISTOV, I.N.

For further improvement in the quality of sanitation and epidemic control work. Zdrav.Pos.Fed. 1 no.3:3-6 Mr '57. (MIRA 10:9)

1. Nachal'nik Glavnogo sanitarno-epidemiologicheskogo upravleniya Ministerstva zdravookhraneniya RSFSR.
(PUBLIC HEALTH)

ZHDANOV, V.; KHRISTOV, L.; MURAV'YEV, M.; RYZHOV, A.; VASHKOV, V.; FEDOSOVA, A. POGODINA, L.; KLECHETOVA, A.; SUBBOTIN, A.; ZAKHAROVA, Ye.; GANDEL'SMAN, B.; SAZONOVA, N.; ZEVAKINA, I.; KUDRINSKIY, I.; MISHAROV, D.; KHANENYA, F.

Professor A.N.Tregubov; obituary. Gig. i san. 21 no.10:63 O '56. (MLRA 9:11)

(TREGUBOV, ALEKSANDR NIKOLAEVICH, 1888-1956)

ZHDANOV, V.M., prof., obshchiy red.; BOL'SHAKOVA, M.D., red. (Moskva); GOROMOSOV, M.S., red. (Moskva); GROMBAKH, S.M., red. (Moskva); KLENOVA, Ye.V., red. (Moskva); ORLOV, N.I., prof., red. (Moskva); RYABOV, V.N., red. (Moskva); RYAZANOV, V.A., prof., red. (Moskva); CHERKINSKIY, S.N., prof., red. (Moskva); KHRISTOV, L.N., red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Proceedings of the Thirteenth All-Union Congress of Hygienists, Epidemiologists, Microbiologists, and Infectious Disease Specialists] Trudy Vsesoiuznogo s"ezda gigienistov, epidemiologov, mikrobiologov i infektsionistov. Vol.1. [Problems of hygiene] Voprosy gigieny. 1959. 727 p. (MIRA 12:12)

1. Vsesoyuznyy s"yezd gigiyenistov, epidemiologov, mikrobiologov i infektsionistov. 13th, Moscow, 1956. 2. Zamestitel' ministra zdravookhraneniya SSSR (for Zhdanov).
(PUBLIC HEALTH--CONGRESSES)

ZHDANOV, V.M., red.; VASHKOV, V.I., red.toma. V redakt.toma prinimali uchastiye: ZAKHAROVA, M.S.; KUDLAY, D.G.; PAVLOV, P.V.; RUDNEV, G.P.; TIMAKOV, V.D.; TROITSKIY, V.L.; KHRISTOV, L.N.. NECHAYEV, S.V., red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Proceedings of the 13th All-Union Congress of Hygienists, Epidemiologists, Microbiologists, and Specialists in Infectious Diseases, Moscow, 1956] Trudy Vsesoiuznogo s"ezda gigienistov, epidemilogov, mikrobiologov i infektsionistov., Pod red. V.M. Zhdanova. Moskva, Gos.izd-vo med.lit-ry. Vol.2. [Section on epidemiology, microbiology, infectious diseases and the organization of public health service] Otdelenie epidemiologii, mikrobiologii, infektsionnykh boleznei i organizatsii zdravookhraneniia. Pod red. V.I.Vashkova. 1959. 866 p. (MIRA 12:11)

1. Vsesoyuznyy s"yezd gigiyenistov, epidemiologov, mikrobiologov i infektsionistov. 13th, Moscow, 1956.
(MICROBIOLOGY--CONGRESSES)

KRISTOV, L. N.

"Basic problems of organizing a sanitary-epidemiological service."

Report submitted at the 13th All-Union Congress of Hygienists, Epidemiologists and Infectionists. 1959

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